IT Unit 3

Topic 1

# Ch 1 Organisations & Data Management

**Collecting data online, p 3**

1. Why do organisations collect data?

Organisations collect data to find out more information on the customer which can help worth future decisions.

1. Explain the advantages to be gained from collecting data online in terms of both efficiency and effectiveness.

Efficiency: improves when customers enter their own data as it saves time and effort as well as money as extra staff is not required

Effectiveness: also, improve when the customers input their own data. Online forms offer greater accuracy by overcoming transcription issues associated with messy handwriting requiring less work to transcribe.

1. How required fields are generally indicated on an online form and why do organisations do this?

Required fields are usually marked with astricts or coloured in red

1. What is a potential problem with direct input?

Spelling mistakes and wrong data being inputted in to the forms is the problem with direct input forms

1. What other advantages are there for businesses in a global economy?

Other advantages for businesses in the global economy include that the can be accessed from across the world expanding their customer base.

1. What other services are provided by businesses online?

Due to online business, business have access to ongoing services including: Tracking information on an order that may be in processing or transit and online booking systems make booking a flight or hotel simple.

**Why users supply data for online transactions,** p 5

1. Elaborate under each of the following headings:
   1. Convenience

Due to online business customers, can access goods and services from their home with ease as online banking is secure and easy

* 1. Variety of choice

By doing business online customers gain a larger range of goods and services that may not be available locally

* 1. Reducing costs

Online business reduces cost as you do not need to have utilities to get to the shops like a car and fuel.

**Techniques used by organisations to acquire data online, p 9**

1. Prior to web based forms, how did organisations collect data?

Before web based forms organisation would ask customers to fill out paper forms by hand

1. What is the role of data acquisition software?

Data acquisition software programs designed to create online forms and then assist in retrieving data the forms, transmit the data and then store it in a database

**User flow diagrams,** p 11

1. What is the purpose of a user flow diagram?

It is able to document how a user will interact with an online solution

1. In using a UFD what is important?

It is important to show clearly the multiple entry points that could get a user to the beginning of a transaction and the key data flows or interactions they must go through to complete the transaction.

**Techniques for efficient and effective online data collection,** p 13.

1. List some techniques for efficient and effective online data collection.

* Keep sets of questions short
* Use clear labels that are easy to understand
* Validate by using existence checks and range checks
* Use appropriate field types
* Keep text at reasonable size
* Allow computer to format data
* Ensure error messages are informative
* Map clear paths to completion
* Be mobile friendly
* Ask relevant questions
* Prepopulate questions by taking similar information that users have entered into other fields.

1. What tool is used to design a form prior to creating a data collection screen?

A layout diagram must be used before creating the data collection screen so you can design the page first

**Design Principles,** p 15

1. To be efficient and effective a data collection form needs to conform to design principles of appearance and functionality; briefly elaborate under each of the following:
   1. Appearance:
      1. Alignment
      2. Justifying text and placing objects such as input boxes and graphics in a way that guides the eye making it easier for the user to follow the path of instructions.
      3. Repetition

Used to unify element of a layout which is achieved by repeating patterns, textures and page elements.

* + 1. Contrast

The positioning of elements that are dissimilar beside each other, the greater the distance between an image or text and their surroundings, the more they stand out.

* + 1. Space

The area that separates onscreen objects, objects are spaced so they are easy to perceive.

* + 1. Balance

All elements of a layout have a visual weight. To achieve visual balance either side or top and bottom must be of equal weight. Symmetrical balance is met when the page can easily be divided in 2 as the weight is equal. Asymmetric weight is met when the page is filled with a combination of shapes and colours.

* 1. Functionality
     1. Useability
        1. Robustness

If there is a problem or a user needs to correct data or undo an action, then the system should be able to step back then forwards again without the user having to restart the entire transaction

* + - 1. Flexibility

Having a user pre-emptive solution where the user initiates and controls the actions is considered more flexible than one where the solution does all the prompting and the user merely replies.

* + - 1. Ease of use

The solution must make it easy for the user to understand how to perform those tasks and even allow for the user to define new tasks and ways of performing them.

* + 1. Accessibility
       1. Navigation

Help users navigate and find content simply, ensure that navigation can also be done on keyboard only devices, give users time to read to use content, use text in place of images for users who cannot perceive thee images

* + - 1. Error tolerance

Help users avoid and correct mistakes with clear instructions and the ability to undo errors by going back to a previous screen (is connected to robustness), make it hard for a user to make errors and avoid allowing actions that to errors. For example, grey out non-selectable options and ask for confirmation of major actions, such as a purchase, or a deletion of an account

* + - 1. What is the purpose of following the design principles?

The design principals are used to create efficient and effective website or form to should be used as guidelines.

**Data Acquisition software,** p 19

1. Elaborate on the nature of PHP and ASP server software.

PHP runs through C++ and JavaScript and presents and is able to present the images and video of a page but ASP runs Jscript and VBscript to present the source code and both are used to

1. What are back-end tools?

Back- end tools are pieces of data of the web sites visitors which provides information such as what web browser the visitor was using, how long was their stay and what they used on the website

1. Describe the nature of a cookie.

A small fie that a web server stores on a user’s computer containing data such as the users email address and wed-viewing preferences

1. What is spyware?

A hard to detect, discreetly installed without a user’s express permission, that collects small amount amounts of information about users without their knowledge.

**Protection of rights,** p 20

1. Why is it important that organisations keep data collected secure?

Organisations must keep their data secure as to prevent loss of customer information for data base and legal reasons

1. Elaborate on each of the following:
   1. Security protocols
      1. TLS, SSL & HTTPS

TLS (transport layer security): a protocol used to provide security for communications on the internet; several versions are popular with users of the world-wide web and email; its predecessor was SSL

SSL (secure socket layer): a protocol used to provide security for communications on the internet; several versions are popular with users of the world-wide web and email; it preceded TLS.

HTTPS (hypertext transfer protocol secure): HTTPS is HTTP (hypertext transfer protocol) that uses SSL/TLS to create a secure URL.

* 1. Privacy policies

A document usually found on a website that informs users why the organisation is gathering data, the purposes for which it will be used and how it will be stored, in accordance with the privacy act 1988

* 1. Shipping and returns policies

Shipping and returns policies are used to assist the customers with how to proceed should the order not meet with their satisfaction